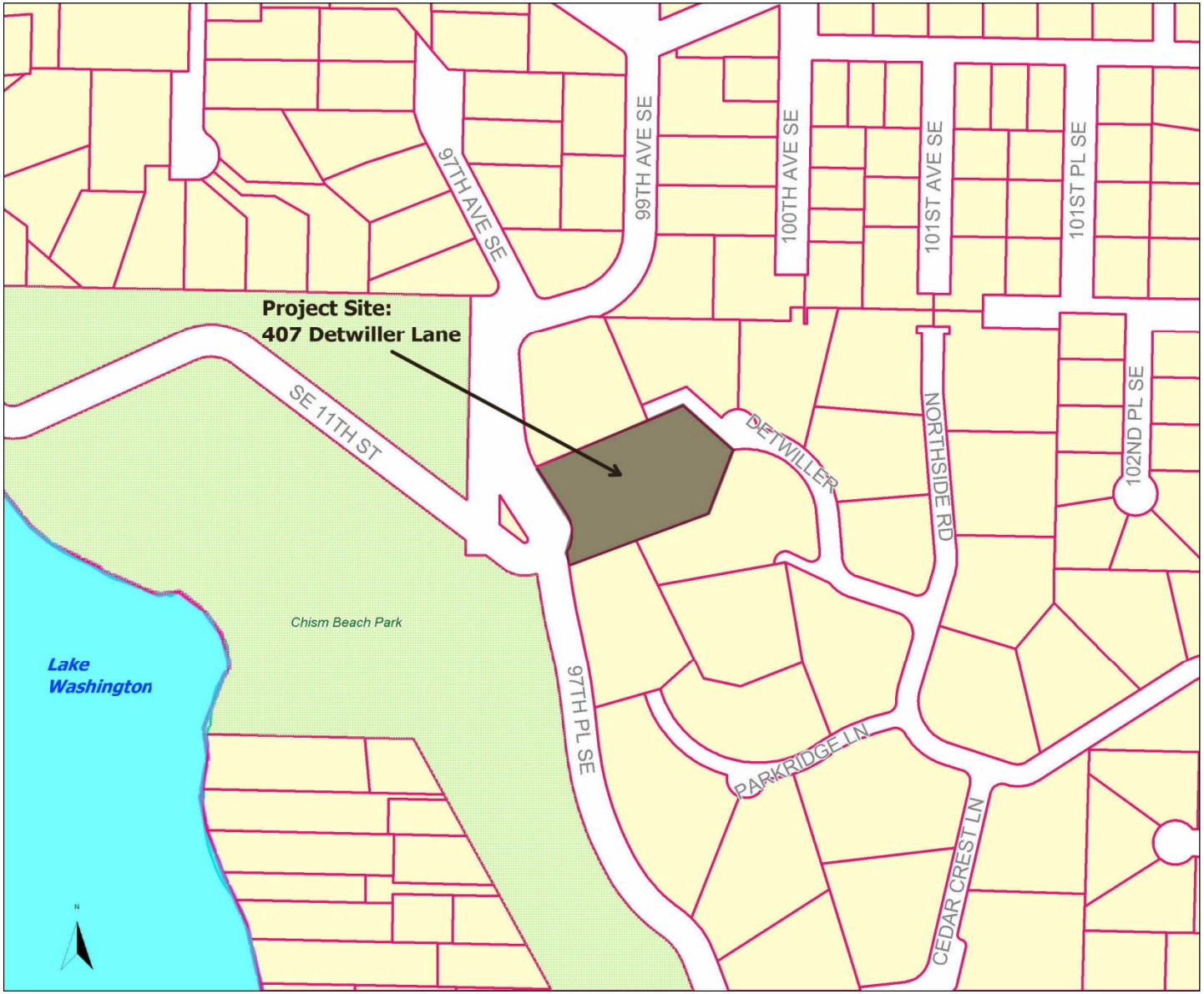
# Scott Buffer Modification
# File Number: 12-104815-LO



January 25, 2012

TO: Mr. Reilly Pittman, City of Bellevue/Land Use Development
FROM: Dan Groves, Sander Groves Landscaping, Inc.
RE: NARRATIVE FOR CRITICAL AREA BUFER MITIGATION, Scott Residence Fire Pit & Seat Wall
PROJECT: Scott Residence, 407 Detwiller Ln – *Fire Pit and Seating Wall*

The attached *Land Use Approval* application pertains to the project at 407 Detwiller Ln where a significant shoring wall and planting restoration project was completed toward the end of 2011 (11-119016-LO and 11-119018-BR). A follow-up revision was approved on 12.13.11 for installation of a south end block wall extension and relocation of a few Japanese Maples at the north end (119018-BR Revs 1&2), both items also now completed.

Bruce Blyton with *Associated Earth Sciences (AES)* has communicated with you about the proposal to install a low seating wall and fire pit feature within the 50' critical area buffer atop the new shoring wall. AES provided the initial geotech reports for the shoring wall project, and per the City's recommendation and *Critical Areas Ordinance*, *AES* has developed a new report with their findings pertaining to installation of the proposed feature. This is included in this current LO permit submittal, as is a Site Plan showing proximity to the completed shoring wall & upland landscape.

The enormous construction impact of the shoring wall resulted in some grading challenges in meeting numerous fixed elevations and restoring level lawn/play areas. It became evident that adding a low retaining wall, unavoidably within the buffer, would best achieve this. This evolved into Owner Phil Scott's desire to add the fire pit with minimal patio surround, and limit the proposed wall height to 18" for "seating" purposes, oriented for view capture. One 30" ht. anchor column is included for a step transition. Construction details of the elements are included on the Site Plan.

While heavy equipment was on site, a "cut" for the wall was executed before machine access was dismantled. Immediately thereafter, all work ceased when we were notified to do so by Clear & Grade Inspector Aaron Roden. No work has progressed since and the area is currently sheathed in plastic with a temporary catch basin and pipe discharge into the drain rock/Type 17 backfill behind completed shoring wall.

Our request here is for a Critical Area modification or "buffer reduction" to 10' only in the area designated for the proposed feature. AES's report dated 1.25.12 explains this in detail. As mitigation, we are proposing a Planting Mitigation Plan involving removal of a lawn patch at far north end of property and adjacent invasive vegetation clearing and replanting of natives (beyond the clearing & planting restoration completed per 11-119016-LO). This Planting Mitigation Plan reflects an approximate 2,100 SF re-planting area to mitigate the approx 375sf area impacted by the proposed wall & firepit feature. Also included is an extension of an arborvitae hedge along this recently surveyed north property boundary.

Daniel Groves (agent for Phil Scott)
Cell: 425.766.3165

January 25, 2012
Project No. KE100403A

Phil and Leslie Scott (Schlaepfer)
407 Detwiller Lane
Bellevue, Washington 98004

Subject: Response to City of Bellevue Comments
Scott Residence - Fire Pit and Seating Wall
407 Detwiller Lane
Bellevue, Washington

Dear Mr. and Ms. Scott (Schlaepfer):

This letter presents our response to selected comments made by the City of Bellevue for the subject project. We have previously issued our "Landslide Evaluation" letter-report, dated February 9, 2011, for the subject property, and also observed the construction of a soldier pile retaining wall, placed as a mitigation for the landslide which was described in our February 9, 2011 letter-report.

We understand that a new fire pit and bench structure is proposed near to the top of the recently-built soldier pile wall. We understand that and that the City of Bellevue has requested that we provide our opinion, per the City of Bellevue *Critical Areas Ordinance*, of the proposed improvements due to the location of the fire pit and bench structure being within the buffer of the previously-delineated critical slope. For our use in preparing this letter, we have been provided with a "Fire Pit and Seating Wall Layout," prepared by Sander Groves Landscape Services, Inc. and dated December 22, 2011, illustrating the proximity of the proposed improvements to the top of the soldier pile wall. We have attached a copy of the provided plan for reference.

Specifically, City of Bellevue staff has issued a letter dated December 2, 2011, which includes the following comments:

> *If you would like to proceed with installing the pit, wall, etc., a new critical areas land use permit (LO) with critical areas report modifying the buffer is necessary. Please be aware that the geotechnical engineer for the stabilization permit specifically mentions that the slopes and buffers are not removed from critical areas status. He also states that the work approved under 11-119016-LO (permit for stabilization, including soldier pile wall) will not prevent future landslide activity. This will need to be addressed by the engineer as part of the submittal of any critical areas report if a new LO permit is pursued.*

Our letter-report, dated February 9, 2011, included subsurface explorations and a slope stability analysis for the steep slope area prior to the construction of the soldier pile wall. As stated above, we recognized the likelihood of future movement along the slope below the wall, and incorporated flexibility in our design recommendations to accommodate a finite amount of movement. We also stated that *"construction of a soldier pile retaining wall at the top of the slope will effectively mitigate the risk of damage to the developed (landscaped) portion of the yard."*

Subsequent to the issuance of our February 9, 2011 letter-report, we observed the construction of elements approved under 11-119016-LO to mitigate the risk of future landsliding at the subject site. This mitigation included an engineered soldier pile wall installed along the top of the slope, with the portion of the slope below the wall regraded to 3H:1V (Horizontal:Vertical), which is less than the 40 percent threshold for a "steep slope" designation, per City of Bellevue *Land Use Code* (LUC) 20.25H.120(A)(2). This regrading provided mitigation for the risk of future movement along the slope below the wall described in our February 9, 2011 letter-report. In addition, the regraded toe slope was revegetated with a variety of native plantings, providing post-construction erosion control for the slope.

The Bellevue *Critical Areas Ordinance* (Part 20.25H of the LUC) states that slopes of 40 percent or greater and landslide hazard areas are protected, and the protected area includes a buffer of 50 feet from the top of the slope. No structure setback is required from the top of a steep slope or landslide hazard area (LUC 20.25H.035.A). Modification to the buffer may be granted by the City of Bellevue.

We understand that the currently proposed fire pit structure is to be situated approximately 13 feet from the top of the soldier pile wall. We visited the site after completion of the soldier pie wall to evaluate the area of the proposed fire pit and its proximity to the wall. We did not observe signs of ongoing earth movement at the area of the proposed fire pit. Based on our previous explorations and slope stability modeling, our observations during construction of 11-119016-LO, our subsequent site visit, and our review of the currently-proposed project plans, it is our opinion that a reduction of the top of slope buffer to 10 feet is suitable for the proposed fire pit project.

As with all slopes, surface drainage should be properly controlled and directed away from sloping areas. Downspouts from roofs and water collected from hard-surfaced areas should be tightlined into suitable storm water drainage systems. Based on our review of the attached plan, it is our opinion that the proposed drainage elements should provide suitable drainage for the fire pit and seating wall. Also, at no time should fill be pushed over the top of the slope. Uncontrolled fill over tops of slopes may promote landslides or debris flows.

Also, in accordance with City of Bellevue LUC 20.25H.145, it is our opinion that the project "will not increase the threat of the geological hazard to adjacent properties over conditions that would exist if the provisions of this part were not modified."

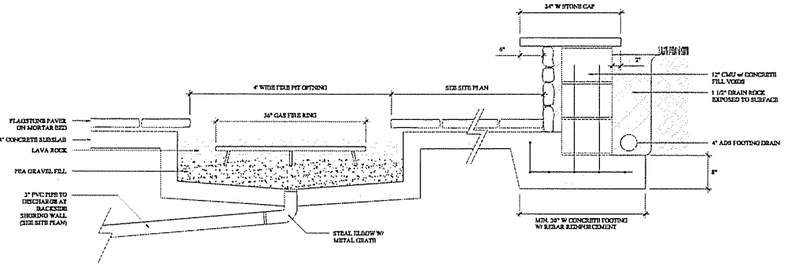
We trust this information meets your current needs. Please do not hesitate to contact us if you require additional information or have any questions.

Sincerely,
**ASSOCIATED EARTH SCIENCES, INC.**
**Kirkland, Washington**


Bruce L. Blyton, P.E.
Principal Engineer

Attachment: Fire Pit and Seating Wall Layout, Sander Groves Landscape Services, Inc. dated December 22, 2011

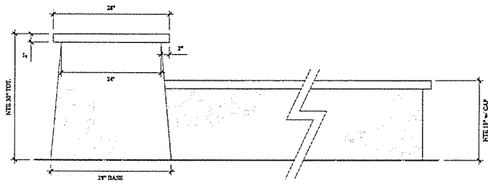
BLB/ld
KE100403A8
Projects\20100403\KE\WP




NOTES:
1. PROVISION FOR LOW VOLT LIGHT STRIP UNDER SEATING CAP
2. NATURAL GAS SERVICE LINE LOCATION TBD

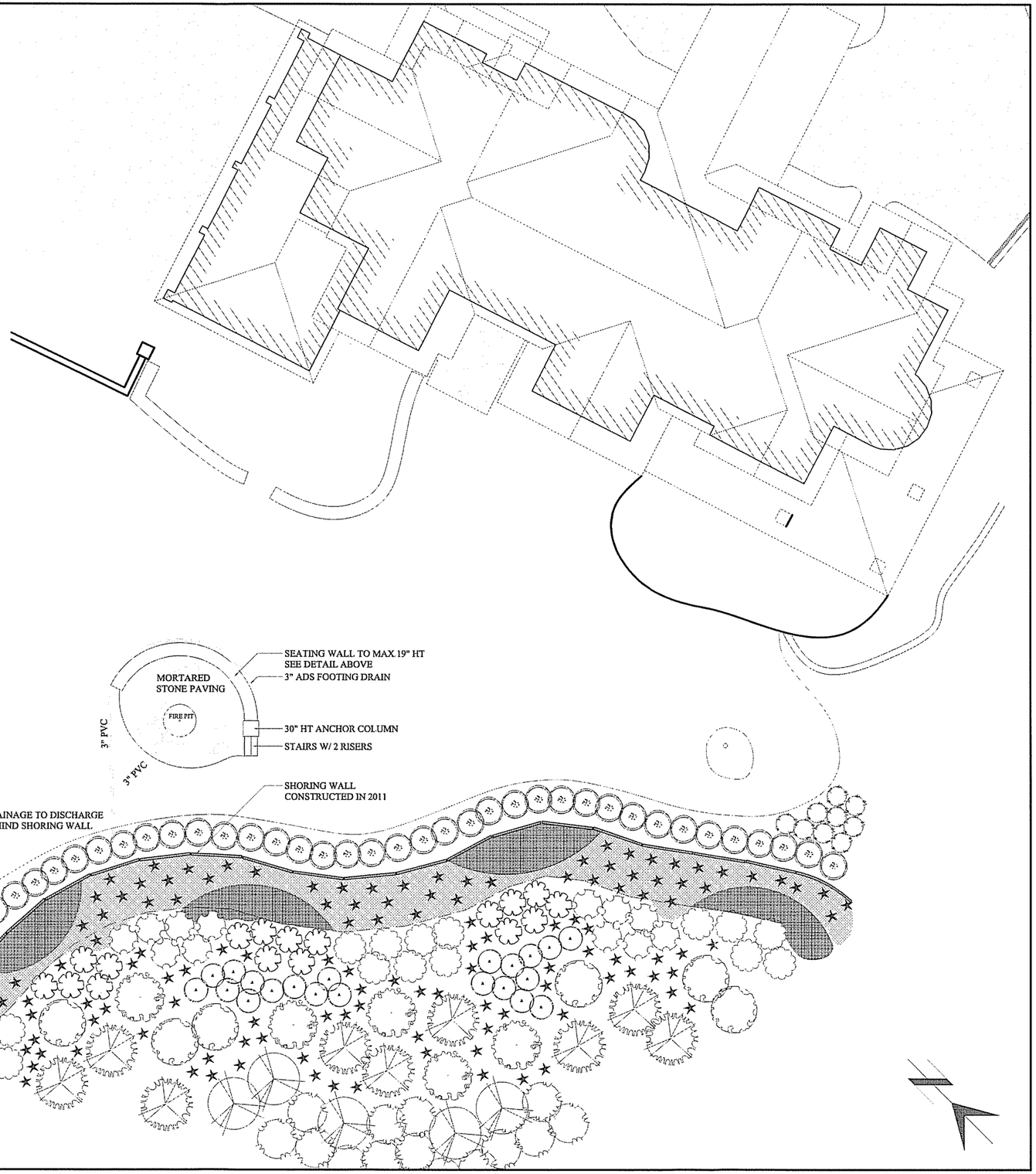
SECTION LOOKING NORTH THROUGH CENTER

SCALE: 3/4" = 1'-0"




ELEVATION LOOKING NORTH

SCALE: 3/4" = 1'-0"




| Revisions | By |
|---|---|
| | |
| | |
| | |

SANDER GROVES
landscape services
20018 ne 50th street
redmond, wa. 98053
tel: 425-868-2200
fax: 425-868-4212

# THE SCOTT RESIDENCE

407 Delaware, Bellevue, WA

FIRE PIT AND SEATING WALL LAYOUT

Date 12/22/11
Scale 1/8" = 1'-0"
Drawn PG/PN
Sheet — of —
Sheets

# EXISTING PLANT KEY

## TREES

| SYMBOL | BOTANICAL NAME | COMMON NAME |
|---|---|---|
| VM | Acer circinatum | VINE MAPLE |
| BLM | Acer macrophyllum | BIG LEAF MAPLE |
| JM | Acer palmatum | JAPANESE MAPLE |
| AL | Alnus rubra | ALDER |
| MAR | Arbutus menziesii | MADRONE |
| PL | Prunus lusitanica | PORTUGAL LAUREL |
| FIR | Pseudotsuga menziesii | DOUGLAS FIR |
| ARB | Thuja Occidentalis | EMERALD GREEN ARBORVITAE |
| CED | Thuja plicata | WESTERN RED CEDAR |
| HEM | Tsuga heterophylla | WESTERN HEMLOCK |
| MTH | Tsuga mertensiana | MOUNTAIN HEMLOCK |

## SHRUBS

| SYMBOL | BOTANICAL NAME | COMMON NAME |
|---|---|---|
| FIL | Corylus avellana | FILBERT |
| RH | Rhododendron Spp. | RHODODENDRON |

# PROPOSED PLANT KEY

## TREES

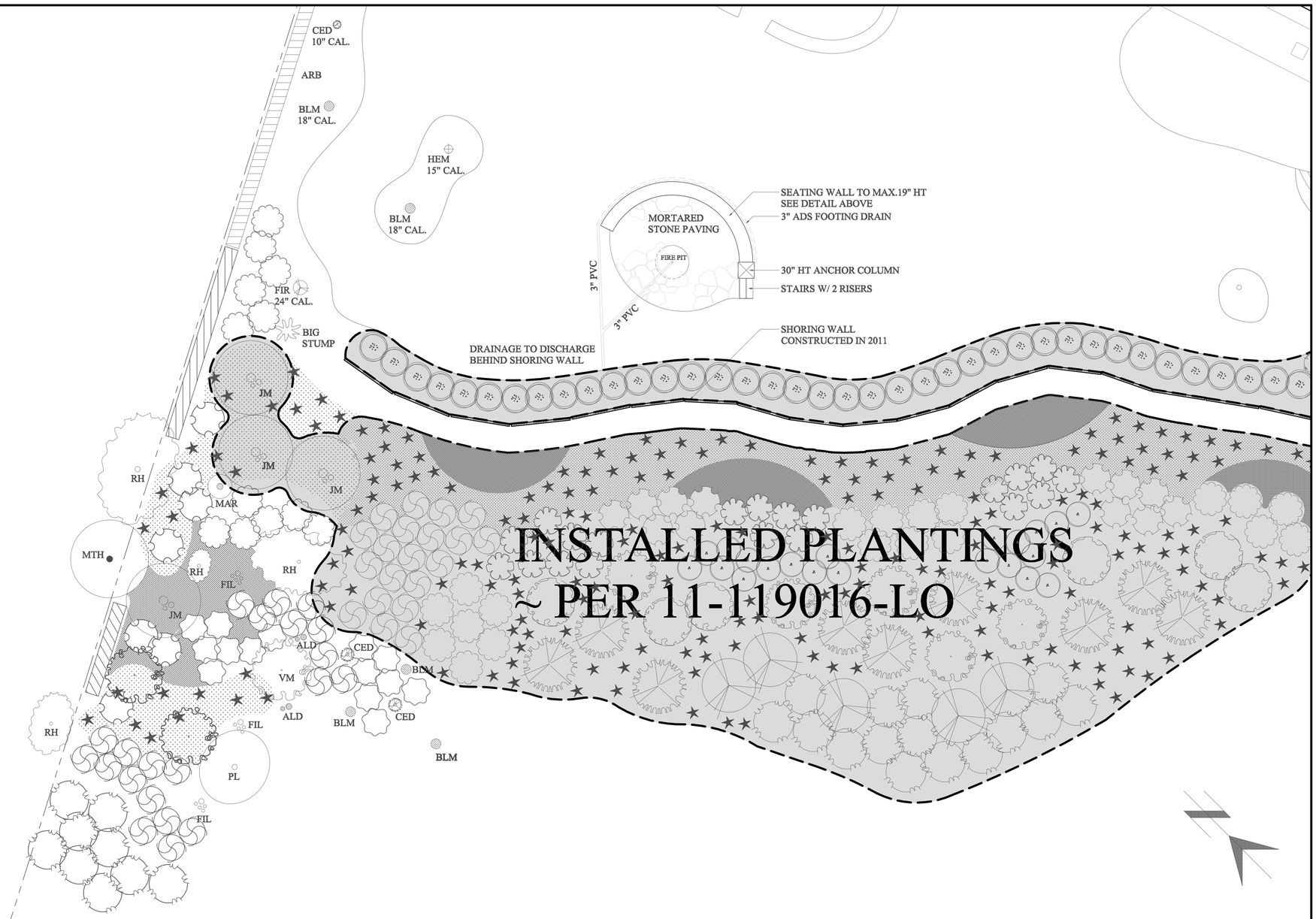
| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE |
|---|---|---|---|
| | Acer circinatum | VINE MAPLE | 5-6' multi-trunk |
| | Thuja Occidentalis | EMERALD GREEN ARBORVITAE | varies 4 - 9' ht |

## SHRUBS

| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE |
|---|---|---|---|
| | Cornus sericea | RED-OSIER DOGWOOD | #5 |
| | Ribes sanguineum | FLOWERING CURRANT | #5 |
| | Salix sitchensis | SITKA WILLOW | #5 |
| | Spiraea douglasii | DOUGLAS' SPIRAEA | #2 |
| | Symphoricarpos Albus | SNOWBERRY | #5 |

## GROUND COVERS & FERNS

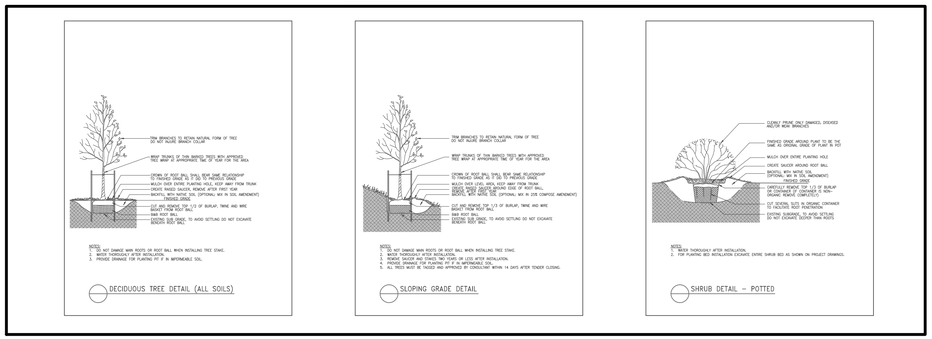
| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE |
|---|---|---|---|
| | Gaultheria shallon | SALAL | 4" |
| | Mahonia nervosa | CASCADE OREGON GRAPE | 4" |
| | Polystichum munitum | WESTERN SWORD FERN | #1 |




## NOTES

1. 8' RESTRICTED BUFFER ON THE TOE SIDE OF THE SHORING WALL INCLUDES NO MAJOR VEGETATIVE PLANTINGS. TO BE PLANTED WITH FERNS AND GROUND COVERS THAT EXTEND NO MORE THAN 12" INTO THE NATIVE SOILS TO PREVENT REDUCING THE PASSIVE RESISTANCE CAPACITY IN FRONT OF THE WALL.
2. TOPSOIL AMENDED AS NEEDED WITH SANDY LOAM AND COMPOST.
3. ALL DISTURBED AREAS TO RECEIVE A 2" MULCH TOPDRESS FOR WATER RETENTION AND WEED CONTROL.
4. ALL TREES TO BE STAKED.

## PLANTING DETAILS




| Revisions | By |
|---|---|
| | |
| | |
| | |
| | |

SANDER GROVES landscape services
20018 ne 50th street
redmond, wa. 98053
tel: 425-868-2200
fax: 425-868-4212

# THE SCOTT RESIDENCE

407 Detweiller, Bellevue, WA

PLANTING MITIGATION PLAN

| | |
|---|---|
| Date | 12/22/11 |
| Scale | 1/8" = 1'-0" |
| Drawn | PG/PN |
| Sheet | 2 of 2 Sheets |